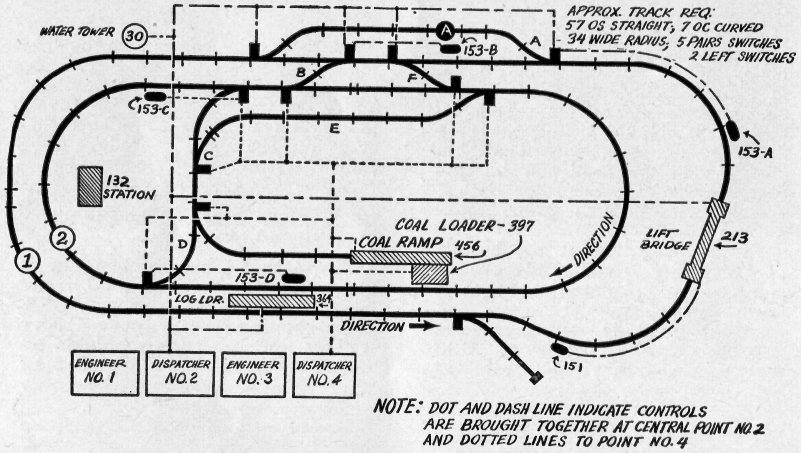
RUNNING A RAILROAD

Most intricate of all model railway systems—and the most exciting of all—is the one that requires the services of a number of operators. Such systems are just the thing for model railroad clubs or for families in which several members all want to participate.

The one shown here is set up for four operators.

The No. 1 man is engineer of the outside loop train, controlling the train only. No. 2 man is dispatcher and operator of the outside loop, controlling switches, signals and any operating accessories. All semaphores, block signals are remote-controlled by dispatcher, so engineer must watch them carefully in the operation of his train.



NOTE: DOT AND DASH LINE INDICATE CONTROLS ARE BROUGHT TOGETHER AT CENTRAL POINT NO. 2 AND DOTTED LINES TO POINT NO. 4

The inside loop also has both train engineer and dispatcher-yardmaster. No. 3 man runs the inside loop train, while No. 4 controls track operations and accessories.

Now comes the interesting part! Switches and cross-overs permit No. 1 train to move into No. 4's railroad and train No. 3 into No. 2's layout. All operators must be on their toes for such transfers.

Operating this railroad is like this: Engineer No. 1 must watch 151 semaphore for warning of open bridge. A yellow light on 153A signal tells him to reduce speed to take switch and pass into siding A. Yellow light on 153B (replacing red light on signal) indicates reduced speed to take crossover B.

When crossover switches at B are set to take trains from outside loop, switch C is also automatically set to take train in on track D. This arrangement reverses train so that it runs in the proper direction on inside loop.

Engineer No. 3 must also follow directions of signals controlled by operator 4. When he is to pass out onto the outside loop, he first backs into track D, then through E, thus reversing direction. Then he is ready to take crossover F to outside loop.

No. 2 operator controls lift bridge, water tower, lumber loader, switches and all UCS sections on outside loop.

No. 4 operator controls coal loader, coal ramp, all switches and UCS sections on inside loop.

This type of multiple-operator railway system is the closest approximation of real railroading there is, and, limited only by available space, it can be expanded to include six, eight and ten operators. It's a sample of the thrills in store for model railroaders.

PART FOUR

HOW TO TAKE CARE OF LIONEL EQUIPMENT

While complete overhauling and replacement of parts is best done by an Authorized Lionel Repairman, you can do a great deal yourself to keep your trains in good operating order. The most important thing you can do is to clean and lubricate your equipment regularly.

A complete Lubricating and Maintenance Kit No. 927, containing detailed instructions and necessary materials, is available at your Lionel Dealer at $1.25 and is a good investment for a model railroader.

CLEANING YOUR EQUIPMENT

All parts of your Lionel outfit which serve as electrical contacting surfaces must be kept clean and free of oil or grease which might act as an insulator. These parts are the rolling surfaces of locomotive and car wheels, the contact rollers and sliders and the track itself. Dampen a clean cloth with Lionel Cleaner or other household cleaner, run it over the surface to be cleaned, then wipe dry. If the rails or the rail pins have become rusted, good contacting surface should be restored by polishing with fine sandpaper or steel wool. Loose pins should be tightened with a pair of diagonal pliers as shown in Figure 27. All missing pins should be replaced.

Frequently rails and pins become rust-coated during storage, particularly if they are kept in a damp place. A light coat of lubricant spread on the rails before they are stored away will keep them in good condition and free of rust and dirt.

If you have a smoke locomotive you may find that after some time the locomotive body may become covered with a whitish deposit of condensed smoke material. This coating is easily removed with a little Lionel Lubricant applied with a soft cloth.

To keep your outfit looking new you may want to clean the cars as well. The painted surfaces of car bodies should be cleaned with a cloth saturated with mild soap suds and dried carefully. Do not use any abrasive cleaners and solvents or you will destroy the printed car markings.

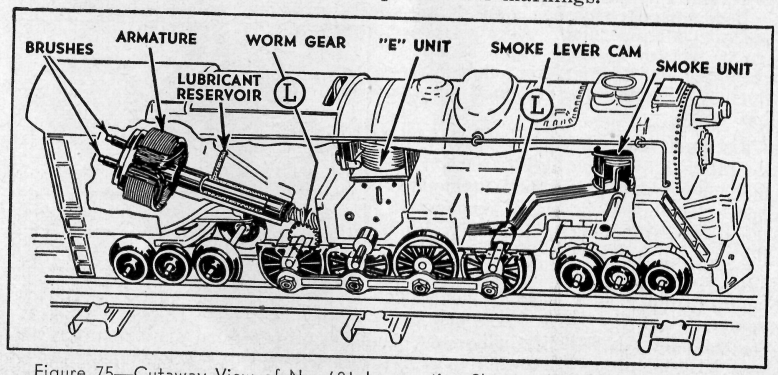


Figure 75—Cutaway View of No. 681 Locomotive Showing Working Parts. Parts Marked "L" Should Be Lubricated Occasionally